

1                                   BEFORE THE STATE OF WASHINGTON  
2                                   ENERGY FACILITY SITE EVALUATION COUNCIL  
3

4 In the Matter of Application No. 2003-01:  
5 SAGEBRUSH POWER PARTNERS, LLC;  
6 KITTITAS VALLEY WIND POWER PROJECT  
7  
8  
9

EXHIBIT 20 SUP (CT-T SUP)

10                                   **APPLICANT'S PREFILED SUPPLEMENTAL DIRECT TESTIMONY**  
11                                   **WITNESS #1: CHRIS TAYLOR**  
12

13 Q       Please state your name and business address.  
14

15 A       My name is Chris Taylor and my business address is 53 SW Yamhill Street, Portland, Oregon  
16       97204.  
17

18 Q       What is your position; and what are your duties and responsibilities?  
19

20 A       I am employed Horizon Wind Energy, LLC. Since 2005, I have been Director of  
21       Development for the Northwest region. In this role, I oversee all our development efforts  
22       in the Northwest. I manage a team of project managers and other staff (including those  
23       working on the Kittitas Valley project) as well as consultants. I am also directly  
24       responsible for business development and the marketing of the output of all of our  
25

EXHIBIT 20 (CT-T) - 1  
CHRIS TAYLOR  
PREFILED SUPPLEMENTAL  
TESTIMONY

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1 projects in the region. Previously my position was Project Development Manager, and I  
2 was responsible for development for the Kittitas Valley Wind Power Project.

3 Specifically, I was responsible for permitting and land use issues including managing  
4 experts and consultants and interacting with local, state and federal agencies and other  
5 interested parties. In my role in managing experts and consultants, I have directed and  
6 supervised analysis of land use and environmental information and the preparation of  
7 land use and environmental reports and related testimony.

8  
9 Q Have you previously filed prepared testimony in this matter?

10  
11 A Yes

12  
13 Q Is this testimony given to supplement your prior testimony?

14  
15 A Yes

16  
17 Q. What is the specific purpose of this supplement to your prior testimony?

18  
19 A To sponsor portions of the Application which had been previously sponsored by Andrew  
20 Linehan., who is no longer available to testify. In addition I will be providing provide additional  
21 testimony relative to the issue of preemption and provide a description of the project and layout  
22 as it is presently proposed.

23  
24 Q What are the additional portions of the Application that you are now sponsoring?

25 EXHIBIT 20 (CT-T) - 2  
CHRIS TAYLOR  
PREFILED SUPPLEMENTAL  
TESTIMONY

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1  
2 A I am sponsoring the following Exhibits to the Application:

3  
4 Subsections of Section 1.4 Mitigation,

5 Subsection 1.4.1.2 (Fire); 1.4.1.7 (Public Services and Socioeconomic Impacts);

6 Subsection 1.4.2.2 (Mitigation for Operations Impacts on Fire).

7 Section 2.1.5 County Land Use Plans and Ordinances

8 Section 5.1.1 Land Use Existing Conditions

9 Clarification Information Attachment 9

10 Section 5.1.2 Land Use Environmental Impacts

11 Section 5.1.5 Land Use Recreation

12 Section 5.1.7 Land Use Agriculture and Crops

13 Section 5.3 Public Services and Utilities (Not including  
14 Section 5.3.3.7 Communication)

15 Clarification Information Section 5.3 Public Services and Utilities

16 Clarification Information Attachment 4

17 Application Exhibit 15 Kittitas County Code, Utilities Chapter 17.62 and Amendments,  
18 including KCC Chapter 17.61A

19 Application Exhibit 18 Project Area Zoning Designations, Aerial Photo

20 Application Exhibit 19 Project Area Fire Districts  
21

22  
23 Q Did you participate in the preparation these sections and exhibits?  
24

1 A Yes. I helped gather most of the information relative to these sections and exhibits aided  
2 Andrew Linehan in their preparation. I am knowledgeable regarding the content of this  
3 information.  
4

5 Q To the best of your knowledge, are the contents of these sections and exhibits of the  
6 Application true?  
7

8 A Yes.  
9

10 Q Do you incorporate the facts and content of these sections and exhibits as part of your  
11 testimony?  
12

13 A Yes.  
14

15 Q Are you able to answer questions under cross examination regarding these sections and  
16 exhibits?  
17

18 A Yes  
19

20 Q Do you sponsor the admission into evidence of these sections and exhibits of the  
21 Application?  
22

23 A Yes  
24

1 Q Are there any modifications or corrections to be made to those portions of the Application that  
2 you are sponsoring?

3  
4 A Yes. This was addressed in the testimony of Andrew Linehan. In Section 5.1 "Land Use,"  
5 page 7, the ASC states that "Major Alternative Energy Facilities and Special Utilities" are  
6 allowed as a conditional use, and that the Project "meets the County criteria for a CUP."  
7 While this is true, as stated elsewhere in Section 5.1, Kittitas County has adopted a new  
8 Chapter 17.61A, which establishes provisions for "Wind Farm Resource Overlay" zones. In  
9 Ordinance No. 2002-13, which adopted Chapter 17.61A, Kittitas County amended KCC  
10 Section 17.61.020(D) to require that "wind farms" must be authorized pursuant to the  
11 "Wind Farm Resource Overlay Zone" process codified in Chapter 17.61A.

12  
13 Q Would you please summarize and briefly describe your knowledge of the project's  
14 impacts upon public services and utilities?

15  
16 A I helped Andrew Linehan in the preparation of Section 5.3 of the Application for Site  
17 Certification. Section 5.3 includes an analysis of public services, including police, fire,  
18 schools, parks, maintenance, communications, water/stormwater, sewer/solid waste, and  
19 other governmental services or utilities. I worked directly with the local fire districts to  
20 develop an agreement to address fire protection needs during construction and operations.

21  
22 Wind power projects create virtually no impacts on local public services. Unlike other  
23 types of development, such as residential or industrial, wind power projects don't add  
24 additional burdens to local infrastructure or services. The only expected impacts on local

1 services from the KVVPP are a potential short term increase in law enforcement  
2 demands due to the presence of large numbers of constructions workers and vehicles and  
3 additional demand for fire protection during construction. These are both short term  
4 (under 9 months) can be easily mitigated, and are vastly outweighed by the very  
5 significant fiscal benefits the project will create in terms of additional property tax  
6 revenues.

7  
8 In the case of law enforcement, the local sheriff's office has indicated they believe they  
9 have sufficient resources to manage the minor, temporary increase in demand that may be  
10 created by the project. In the case of fire protection, the Applicant has negotiated a fire  
11 services agreement with the local fire district (#2) that will actually increase the level of  
12 fire protection provided and fire fighting equipment available to the local area above the  
13 current baseline. Impacts to other services such as water, sewer, parks and recreation and  
14 schools are expected to be minimal to non-existent, other than the fact that the project  
15 will generate significant tax revenues to help finance all these services.

16  
17 Q Would you please summarize and briefly describe your evaluation of the project's  
18 impacts upon recreational facilities and services?

19  
20 A Staff working at my direction developed ASC Section 5.3.2.5 (Table 5.3.2-1) which  
21 provides a detailed list of parks and recreational facilities and activities within a 25-mile  
22 radius of the Project of beyond. In the ASC, we indicated there was some potential for  
23 construction workers to utilize area campgrounds, parks and other recreational facilities  
24 during the period while the project in under construction. A few of these facilities in

1 Kittitas County are typically quite full during the peak summer demand period, and it is  
2 possible that construction workers from the project might temporarily displace some other  
3 users. However, I am not aware of any evidence that the much larger Wild Horse project  
4 which is currently under construction has created any significant displacement of  
5 recreational users from area facilities. In light of this, it seems very unlikely that the  
6 Kittitas Valley wind power project, which is substantially smaller and closer to  
7 Ellensburg, would create any noticeable impacts on local recreational opportunities.  
8 During project operations, we anticipate a relatively small number of permanent staff and  
9 we expect roughly half of these to be hired locally, so the addition of perhaps 10 new  
10 employees will not have any appreciable impact on local facilities.

11  
12 Q Would you please briefly describe the history of the Applicant's request to EFSEC for  
13 preemption in this case?

14  
15 A The Applicant filed a request for preemption with EFSEC pursuant to WAC 463-28-040  
16 on February 9, 2004 and withdrew the first County application. The Applicant continued  
17 to work with the County on the issue. In the summer of 2005 the Applicant decided to  
18 revise the project size and configuration and to file a new application with the County, in  
19 hope of obtaining land use consistency. The Applicant approached both the County and  
20 EFSEC on this matter and it was agreed to suspend the EFSEC process pending the new  
21 application with the County. Both the County and EFSEC requested the Applicant to  
22 withdraw its request for preemption pending the outcome of the new County application.  
23  
24 The Applicant withdrew its request for preemption on October 19, 2005.

1  
2 The Applicant made a second attempt to achieve local land use consistency, and filed a  
3 Development Activities Application pursuant to KCC 17.61A with the County dated  
4 September 30, 2005 and submitted a revised Development Activities Application on  
5 County-required application forms, dated October 14, 2005. The County deemed the  
6 application complete on October 17, 2005.  
7

8  
9 Q Why did you go back and reapply with the county?

10  
11 A For a variety of reasons, including:

- 12 • We had just recently completed permitting of the Wild Horse wind power project with  
13 the County staff and BOCC. County staff strongly encouraged us to reapply for the  
14 Kittitas Valley project, and were optimistic and upbeat about the prospects for a  
15 successful process on this project as well. While we felt strongly that the County process  
16 was duplicative of the EFSEC process in many respects and lacked objective standards or  
17 criteria for approval, we were able to achieve a successful outcome with Wild Horse.  
18 While I did not personally attend every meeting with County staff regarding the Wild  
19 Horse project, I was fully involved in the internal discussions among Horizon staff and  
20 our legal team both before and after each meeting and I participated actively in  
21 negotiation of material issues in the Development Agreement with the County.
- 22 • In the case of Wild Horse, County staff actively participated in negotiations regarding  
23 specific elements of the Development Agreement. Unfortunately, this did not prove to be  
24 the case for the Kittitas Valley project, where County staff were unwilling or unable to



1 negotiate on substantive issues and were unable to provide clear direction or feedback as  
2 to the expectations of the BOCC.

- 3 • We have always genuinely wanted to have a positive working relationship with the  
4 County and avoid the issue of preemption. Wind farms are a very long term investment  
5 and we always want to build trust and mutual understanding with local officials. In every  
6 community in which we operate, we strive to develop productive relationships with the  
7 local government. We have been successful in building such relationships in nearly  
8 every community across the country besides Kittitas County. We have always  
9 recognized that preemption is a measure of last resort, something we would only pursue  
10 after having exhausted all other viable options.

11  
12 Q What did you do to try to make the Project more acceptable to the County?

13  
14 A We reduced the number of proposed turbines significantly to a maximum of 80. This  
15 reduction in the number of proposed turbines represents a very real and substantial  
16 economic cost to the Applicant, the project landowners, and to the local taxing districts.  
17 From the Applicant's perspective, the financial impact of the reduction in number of  
18 turbines is also significant, as there are many fixed costs in a project such as this which  
19 do not decline as the size of the project is reduced. In addition, several project  
20 landowners saw the number of proposed turbines on their land cut substantially, along  
21 with the royalties associated with those turbines. We were very reluctant to propose this,  
22 as we knew the landowners would be adversely affected by the resulting loss of income  
23 to them. The Department of Natural Resources is one such landowner, with elimination  
24 of turbines that would have generated significant revenues for the State School Trust.

1  
2 But we decided to propose a major reduction in the number of turbines as a good faith  
3 demonstration to the County that not only had we returned to their process but that,  
4 within the constraints of the competitive environment faced by the wind power industry  
5 in the Pacific Northwest, we were willing to address issues raised in prior discussions  
6 with the County and the public. We believe that the absence of established objectives or  
7 standards in the land use process established by the County for siting wind farms creates  
8 largely a political process. Having agreed to re-engage with that process, we wanted to  
9 make a clear and unequivocal demonstration of our desire to reach a mutually agreeable  
10 resolution with the County and our intention to negotiate in good faith. It was our strong  
11 perception (and that of many local residents with whom we consulted) that the County  
12 was simply looking for some sort of concession from the Applicant to demonstrate to the  
13 project's opponents that they (the BOCC) had listened to their concerns and taken some  
14 sort of action. This perception was based, in large part, on the fact that while this was the  
15 third wind power proposal the BOCC had considered, they had yet to articulate any clear  
16 and consistent standards for approval.

17  
18 Once we had made the decision to reduce the number of proposed turbines, we went back  
19 to the record and reviewed the comments we had received from the public and the  
20 County. Then we reviewed the proposed layout in light of the visual impact analysis in  
21 the ASC and DEIS. We tried to identify those areas where the visual impact analysis  
22 and/or public comments suggested a particular visual sensitivity. We then proposed the  
23 elimination of turbines in those areas. During the subsequent County hearing process, in  
24 response to input from the BOCC at the suggestion of County staff that a limit on the

1 total number of turbines being proposed was needed, we proposed a ceiling of a  
2 maximum of 65 turbines, a further potential economic loss to both the Applicant and the  
3 landowners, in yet another demonstration of our sincere interest in reaching an agreement  
4 with the County.

5  
6 Another key step we took in our effort to reach a successful permitting outcome with the  
7 County was to increase our already substantial level of staffing devoted to this project by  
8 hiring two new Project Managers with substantial experience in county government.  
9 Specifically to staff the local permitting effort for this project, we hired Joy Potter, an  
10 Ellensburg native and resident with over 20 years experience working for the Kittitas  
11 County Public Works Department. And we hired Dana Peck, a Goldendale resident who  
12 has spent the much of his career in the energy field, and spent 8 years heading the  
13 Klickitat County Economic Development Department, including leading the development  
14 of a county-wide wind overlay zone and a programmatic EIS, addressing long-term  
15 county-wide energy resource concerns. We believed that Joy's deep knowledge of the  
16 community and the County government and Dana's long experience with both the wind  
17 power industry and central Washington county government would help us work more  
18 effectively with the Kittitas County staff and BOCC.

19  
20 Finally, I would point out the very considerable amount of time and money we have  
21 devoted to seeking County approval of this project. We have had a downtown Ellensburg  
22 office with a full time presence for four years. We have worked very hard to become a  
23 true member of the community through active participation in local organizations, a  
24 comprehensive outreach effort that has included presentations to every major civic group

1 in the county and support for local charities. We have spent over \$2.5 million on  
2 activities directly related to permitting this project over a period of nearly 4 years.

3  
4 Q Please describe the results of your attempts to downsize the project and obtain County  
5 approval.

6  
7 A Neither the County staff, Planning Commission or BOCC acknowledged in any  
8 meaningful way our proposed reduction in the number of turbines from the original  
9 design or our agreement to put a ceiling on the number of turbines proposed for the site.  
10 It was as if none of them understood or took notice of our commitment to local resolution  
11 of land use consistency and the economic sacrifice that the reduction represented to the  
12 Applicant, landowners, and local tax revenues. We were extremely disappointed by this  
13 lack of response.

14  
15 We were also struck by the difference in terms of our interactions with County staff on  
16 this project compared to on the Wild Horse project. In the case of Wild Horse, County  
17 staff were willing and able to discuss substantive issues and propose solutions or  
18 alternatives. But for Kittitas Valley, staff were unable to address even the most basic  
19 questions about what the BOCC's expectations were. During the April 12, 2006 hearing  
20 (Page 14, line 25 and page 15, lines 1 -4) Commissioner Huston acknowledged the staff  
21 direction of the Wild Horse template use for the KV project. During the April 27 hearing  
22 (page 28, lines 5 – 6) Commissioner Huston demanded a new development agreement,  
23 “not a cut and paste from Wild Horse.” It was equally challenging to identify what was  
24 being requested of the Applicant during the hearings as motions were not passed, but

1 directives given by individual members of the BOCC that were contradictory. During the  
2 April 12 hearing (page 54, line 1 – 4) Commission Huston gave the Applicant the  
3 opportunity to amend the Development Agreement, followed by a statement on page 56,  
4 lines 4 – 12 that he cannot look at a Development Agreement until adequate setbacks  
5 exist. In light of Commissioner Huston’s comments that he did not want to review a  
6 revised Development Agreement until the setbacks were established, Horizon did not  
7 present a revised Development Agreement at the April 27 hearing, and was chastised by  
8 Commissioner Houston (April 27, page 25, lines 23 -25) for failing to provide an updated  
9 draft of the Development Agreement.  
10

11 In their initial deliberations on the project, while the BOCC did not specifically discuss  
12 the findings we proposed for the subarea plan and rezoning approval criteria, the BOCC  
13 agreed with nearly all of the findings we had proposed related to project benefits and  
14 impacts. Specifically, they acknowledged the fiscal and economic benefits of the project;  
15 they rejected the opponents’ arguments regarding impacts to property values, wildlife and  
16 public safety; and they acknowledged that their own planning goals and code did not  
17 allow them to reject the project solely on the basis of visual impacts – beyond some  
18 undefined distance (*i.e.*, the BOCC rejected “view shed” impacts, based on adopted  
19 County planning policies). The transcripts of April 12, pages 20 – 25 reflect  
20 Commissioner Huston’s concurrence with these findings. In essence, the BOCC found  
21 that the project was compatible and met the County’s zoning requirements with the  
22 exception of the issue of impacts on residences within 2,500 feet of turbines regarding  
23 shadow flicker and visual impacts. The BOCC never acknowledged our offer to further  
24 mitigate shadow flicker impacts through operational controls, *i.e.* by shutting down  
25

1 individual turbines at specific times to keep total hours of shadow flicker below an agreed  
2 upon threshold.

3  
4 In their deliberations, each member of the BOCC offered their own opinion about the  
5 appropriate setback distance from residences, which ranged from 2,000 feet to 3,000 feet.  
6 At this stage, while demanding that we reconfigure the project with greater setbacks, the  
7 BOCC did not adopt a motion or otherwise seek to clarify this fundamental issue. We  
8 sought clarification from staff as to what setback the BOCC was proposing we adopt, but  
9 staff was unable to provide such clarification other than to refer us to the rather muddled  
10 public record which, as cited above, provided conflicting statements from individual  
11 BOCC members. After analyzing the impacts of various setback distances on the project,  
12 we proposed increasing the setback distance from non-participating residences to ¼  
13 miles, an increase of nearly one third from our original 1,000 feet. We made it clear to  
14 County staff that this was the maximum setback distance that would preserve an  
15 economically viable project and that further increases would jeopardize the project's  
16 viability. As with our proposed reduction in the number of turbines, the County did not  
17 acknowledge or respond to this proposal.

18  
19 Q: Kittitas County has suggested that the Applicant was unwilling to address questions from  
20 the BOCC regarding the effect of various proposed setback distances on the economic  
21 viability of the project. Can you please respond to this assertion?

22  
23 A: After over five months of hearings, and near the conclusion of the final night of BOCC  
24 deliberations, Commissioner Huston asserted that we were unwilling to respond to his

1 proposed setback distance proposals. He demanded information regarding the why we  
2 did not consider a greatly reduced project economically viable. There were several  
3 reasons why responding with additional information was not a reasonable expectation.  
4 First, the BOCC had closed the record after months of testimony, and we had been told  
5 by Mr. Huston that we were not to introduce any new information into the record after  
6 that point (and chastised for doing so). To respond to his later questions regarding  
7 economic viability of various setbacks, we believed that this would have been considered  
8 new information, and thus would have triggered literally endless rounds of additional  
9 public hearings, without any way to gauge whether we would ever obtain local approval.  
10 Given the protracted history of the local approval process for this project, we simply  
11 could not accept ambiguous additional delays.

12  
13 Second, the BOCC had failed to establish by vote any defined objective criteria (such as  
14 setbacks) under which they would approve the project. Mr. Huston was, in effect, asking  
15 us to bargain with ourselves in public session, without any clear indication of what was  
16 required to obtain BOCC approval of our application.

17  
18 Third, we have a fundamental objection to the County's assertion that they have the legal  
19 right to require us to divulge sensitive, proprietary commercial information in the context  
20 of a land use approval process. We are not aware of single instance in which this BOCC  
21 has ever required an applicant for any type of land use approval to make public financial  
22 details of their proposed commercial projects. Furthermore, we believe that, as the  
23 proponent of this project, we have the fundamental right to determine, in our sole  
24 discretion, whether a given project configuration is commercially viable and worthy of

our considerable investment. We are not seeking any investment of County funds for this project. On the contrary, we have demonstrated that the project will result in substantial fiscal benefits to the County. Therefore, we believe we have the right to make the subjective business decision about what constitutes a viable investment of our own funds.

Q: What would be the impact of increasing the setback from non-participating residences to turbines from ¼ mile to 2,000 feet? 2,500 feet?

A: The reduction of turbines resulting from a 2,000' setback from non-participating property lines is a loss of 58% of the turbines and 50% of the landowners would lose all turbines located on their property. 40% of the turbines are lost at the 2,500' setback from existing structures and 29% of the landowners would lose all turbines on their property. The following table demonstrates the impact of the County proposed setbacks:

Property Owner	Proposed Layout (1/4 mile from residences)	2,000' Property Line Setback	2,500' Structure Setback
Noel Andrew	4	3	2
Los Abuelos	2	2	2
Cascade Field & Stream	2	0	2
Mike Genson	8	5	4
Marvin Green	1	0	0
Dan Green	12	9	12
DNR	15	2	8
Karl Krogstad	1	0	0
James Major	2	0	0
Mick Steinman	2	0	0
Carla Thomas	4	0	1
Larry Tritt	1	1	1
Pautzke Bait	2	0	1
Sagebrush	7	5	5
	63	27	38



1 . It is very difficult to understand why, in light of the very substantial negative impacts that  
2 a 2,500' setback imposes, the BOCC chose to ignore all of those impacts and insist on  
3 2,500' when the difference in terms of visual impacts between ¼ mile (our proposed  
4 setback) and 2,500' is so minimal and effects just a tiny handful of people, many of  
5 whom don't even live in the affected structures on a year round basis. When I look at the  
6 photos in Dr. Priestly's testimony that compare the view of a turbine from ¼ mile with  
7 that from 2,500 feet, I see a subtle difference, hardly one that merits the huge, obvious  
8 negative impacts of imposing such a setback. Such a setback would cut the economic  
9 benefits of the project nearly in half in terms of tax revenues, deny nearly a third of the  
10 landowners any opportunity to have wind turbines on their land, and greatly reduce the  
11 local economic development benefits of the project. Furthermore, such a reduced project  
12 would have proportionally fewer environmental benefits as well in terms of avoided air  
13 emissions.

14  
15 The commercial impact of further turbine reductions is very substantial. A utility scale  
16 wind power project such as this one has a number of "fixed" costs that vary little if at all  
17 with the size of the project. All fixed and variable costs must be incorporated into the  
18 price of the project's output in order to be economically viable. If the size of that output  
19 is, for example, cut in half, (as it would have been by some of the setbacks discussed by  
20 the BOCC) then the relative impact of those fixed costs on the price we must charge for  
21 one megawatt hour of output are doubled. Our ability to simply pass on such additional  
22 costs is limited, as we are attempting to sell the output in a competitive marketplace, and  
23 we risk pricing ourselves out of the market.

1 These fixed costs include items such as the cost of project development, transmission  
2 interconnection; transaction costs such as marketing the output and negotiating a power  
3 purchase agreement; financing costs; construction management; construction  
4 mobilization; project permitting (we have already risked over \$2.5 million of dollar in  
5 permitting this project, making it one of the most expensive wind power permitting  
6 exercises ever), and EFSEC permit maintenance fees. In contrast to these permitting  
7 costs and the delays we have experienced with the KV project, we compete with other  
8 Northwest wind power facilities that have been efficiently and expeditiously permitted  
9 locally, with strong support of local governments.  
10

11 One also has to consider the opportunity cost of developing a much smaller project. As I  
12 described earlier, we are devoting a very substantial amount of staff time to permitting  
13 this project. Many people in our company have been involved over a long period of time.  
14 We also have to consider what could be accomplished if that time were devoted to  
15 another, larger project instead.  
16

17 There are other commercial issues affected by any further reductions in the size of the  
18 project. These include the fact that we have already submitted proposals for the sale of  
19 the output of the project based on a larger project size. For example, we submitted a  
20 proposal to Puget Sound Energy (PSE) in response to their 2006 request for proposals  
21 (RFP) based on a 130 MW layout for the Kittitas Valley project. The 130 MW proposal  
22 represents Horizon's best judgment of the likely generation capacity of a reduced project,  
23 in an approximate 65 turbine configuration, relying on the most likely wind turbine  
24 generator equipment scenario. PSE has placed this project on their initial "shortlist"  
25

1 based on their analysis of a 130 MW project. While I can not speak for PSE, I do know  
2 that most utilities prefer to acquire energy resources in larger units – in other words, they  
3 would prefer to acquire one 130 MW project rather than two 65 MW projects. This is  
4 because they too have to consider opportunity costs and fixed transactions costs such as  
5 legal expenses to negotiate a contract, due diligence, transmission interconnection,  
6 scheduling, oversight of contractors, regulatory approvals, etc.

7  
8 Q What was the result in your opinion of the reduction of turbines resulting from the  
9 County's requirement of the 2500 feet setback from turbines to non-participating  
10 residences on the commercial viability of this project?

11  
12 A The reduction in the size of the project that would result from the imposition of a 2,500'  
13 setback would have rendered this project unviable from a commercial perspective under  
14 current market conditions. As I have stated previously, we really wanted to reach an  
15 agreement with Kittitas County. But the terms they discussed were not only totally  
16 unfounded in terms of the record, but would have undermined the commercial viability of  
17 this project to an unacceptable degree.

18  
19 Q: Has the Applicant considered other potential locations in Kittitas County for the proposed  
20 project and found them to be acceptable?

21  
22 A: We have considered other locations in the County, but we have not found any that are  
23 acceptable alternatives to the proposed site. The issue of alternative sites has also been  
24 addressed in detail in EFSEC's Supplemental DEIS. There are many factors that make

1 this proposed site unique. First of all, there is a robust and extremely well documented  
2 wind resource that has been measured carefully over a period of over six years. I am not  
3 aware of any alternative sites that are equally well documented that are available to the  
4 Applicant. The fact that predictive models and “wind maps” indicate potential in other  
5 areas of the County is no substitute for high quality, long term, on-site data. This type of  
6 data dramatically reduces the financial risk of the project from an investment perspective.

7  
8 Second, this site benefits from the presence of multiple transmission lines of appropriate  
9 voltage and with adequate additional capacity to carry the entire output of the project.  
10 The lines we propose to interconnect to are literally right overhead and require no new  
11 construction of feeder lines, as was the case for the Wild Horse project. Such feeder lines  
12 are costly and entail additional environmental impacts. We have completed System  
13 Impact Studies with both BPA and PSE and these have confirmed the viability of  
14 interconnecting the project to the adjacent 230kV lines. In addition, these proposed  
15 interconnections can be achieved without substantial network upgrades, which further  
16 enhances the project’s economic viability. Finally, we have already secured  
17 advantageous transmission queue positions with both BPA and PSE due to the fact that  
18 those requests were originally filed several years ago and are senior to others in the  
19 queue.

20  
21 Third, we have existing land agreements with the participating landowners. It is not self  
22 evident that owners of other potential sites would be willing to enter into such agreements  
23 with us.

1 Fourth, exhaustive environmental analysis has demonstrated that the impacts to the  
2 environment, and in particular wildlife and habitat, of the project at the proposed site  
3 would be minimal.  
4

5 Q: In Kittitas County's informal discovery request, they demand to know what plans the  
6 Applicant may have regarding a potential expansion of the Wild Horse project. Can you  
7 please respond to this?  
8

9 A: First of all, it is my understanding that any application for a future "expansion" of the  
10 Wild Horse project would have to be made by the owner of the Wild Horse facility,  
11 which is PSE. I do not believe a party may apply to EFSEC or the County to expand a  
12 facility owned by another party.  
13

14 With regard to any development interests Horizon Wind Energy may have in the vicinity  
15 of the Wild Horse project, we do not at this time have a formal proposal for an additional  
16 wind project in that area and we have not applied for any permits. We do have an option  
17 to purchase a small amount of land (about 1,400 acres) from the same private landowner  
18 from whom we acquired the rights to the Wild Horse site. We have two temporary  
19 meteorological towers on that property that are currently collecting wind data. Our  
20 preliminary assessment is that the property we have under option could accommodate  
21 perhaps 20 wind turbines. This is only an initial estimate, but clearly this site is in no way  
22 comparable to the Kittitas Valley site in terms of the magnitude of wind energy potential,  
23 as it is roughly 1/5<sup>th</sup> the size of the Kittitas Valley site in terms of acreage. Without the  
24 presence of existing infrastructure (roads, step-up substation, feeder lines, etc.) at the  
25

1 adjacent Wild Horse project site, a project of this size would not be economically viable  
2 under current market conditions. Such a project would best be characterized as an  
3 expansion of Wild Horse, rather than a new project.  
4

5 Q: In Kittitas County's informal discovery request, they demand to know what the Applicant  
6 may have heard about other wind energy developers plans for other potential sites in the  
7 County. Can you please respond to this?  
8

9 A: To the best of my knowledge, the only other wind power projects that have been formally  
10 proposed in the County are the Wild Horse and Desert Claim projects. It has come to my  
11 attention that another wind power firm is considering a potential site south and east of the  
12 Wild Horse site. I am not familiar with the details of this proposed site, but I understand  
13 that it is under consideration by Invenergy, LLC, a Chicago-based wind power developer.  
14 I do believe, however, that the Wild Horse project site occupies the most desirable ridges  
15 for wind turbine placement in that general area. This was the opinion of the professional  
16 meteorologists we consulted in developing the Wild Horse project. Indeed, that is why  
17 we proposed it where we did. Furthermore, it is my understanding that the remaining  
18 land belonging to the private landowner from whom we acquired the rights to the Wild  
19 Horse site, is under option for conservation acquisition and that some of that land has, in  
20 fact, already been purchased for habitat and wildlife conservation purposes. Therefore, I  
21 do not believe those parcels would be available for wind power development. Finally, it  
22 is my understanding that the Wild Horse project will consume most of the remaining  
23 available capacity on PSE's Intermountain Power transmission line to which it will  
24 interconnect, leaving little if any available capacity for future projects in that immediate  
25

1 area. The BPA transmission lines to the west of the Wild Horse site are 500kV lines, and  
2 therefore interconnecting to them would likely cost somewhere on the order of \$10 to \$20  
3 million, which would likely be cost-prohibitive.

4  
5 For all of these reasons, I do not believe that a viable alternative to the proposed Kittitas  
6 Valley site exists.

7  
8 Q As a result of the further efforts you described above to obtain land use consistency with the  
9 County, were there some refinements made to the Project configuration and description with  
10 regard to the original ASC?

11  
12 A Yes

13  
14 Q What types of refinements were made to the Project?

15  
16 A Primarily, refinements were made to the Project configuration to further mitigate potential  
17 environmental impacts including reducing the maximum number of turbines from 80 units  
18 in the Application made to the County in October of 2005. The maximum number of  
19 turbines was later reduced to 65 units during the County hearing process at the suggestion of  
20 County staff. Therefore we are requesting the siting of up to 65 turbines in the turbine  
21 corridors subject to the relevant setbacks. In the EFSEC process, we also propose increasing  
22 the setback limits from adjacent non participating residences to ¼ mile.

23 The changes to the project proposed by the Applicant were described in the EFSEC  
24 Addendum to the DEIS.

1  
2 Originally we requested certification of a range of wind generation turbine sizes, within a  
3 specific turbine layout footprint. The three scenarios were used to capture the full range  
4 of potential impacts to the environment and areas set out below:

- 5
- 6 • Lower End Scenario: The lower end scenario represents the project configuration  
7 with the lowest number of turbines erected. For turbines with a nameplate capacity of  
8 3 MW each, up to 82 turbines would be used for a total nameplate capacity of 246  
9 MW.
  - 10 • Middle Scenario: For turbines with a nameplate capacity of 1.5 MW each, 121  
11 turbines would be used for a total nameplate capacity of 181.5 MW.
  - 12 • Upper End Scenario: The upper end scenario represents the project configuration with  
13 the highest number of turbines erected. For turbines with a nameplate capacity of 1.3  
14 MW each, up to 150 turbines would be used for a total nameplate capacity of 195  
15 MW.

16 The scenarios were modified to a certain extent when we reapplied to the County in  
17 October of 2005. We designated the Middle to Lower End Scenario as that most  
18 probable to be constructed. It is unlikely that the Upper End Scenario (1.3 MW turbines)  
19 would be constructed. We further committed to limit the project to not exceed 80  
20 turbines. We were contemplating a project between 65 and 80 turbines, depending on the  
21 size of the turbines we might ultimately utilize.

22 We also moved or removed portions of the strings from the turbine corridors originally  
23 proposed. The revised KVVPP layout we proposed to the County in October 2005 is  
24 attached to this testimony as Attachment 1, and incorporated by reference herein. A  
25 comparison of these changes to the layout originally proposed in the ASC was set out in  
Addendum Figure 2-1 of the EFSEC Addendum to the DEIS. This Figure accurately  
represents the changes and is provided below.



Turbine String	Revision to Layout
A	The previous string A and the northern portion of the previous string D have been re-oriented into a revised string "A", located in the northwest corner of Township Section 16.
B	Turbine string B is in the same location; there will be fewer turbines sited along this string.
C	Turbine string C is in the same location; there will be fewer turbines sited along this string.
D	The north portion of string D has been re-oriented and incorporated into string A. The southern portion of string D has been eliminated.
E	Turbine string E is in the same location; there will be fewer turbines sited along this string.
F	Turbine string F is in the same location; there will be fewer turbines sited along this string.
G	The north portion of turbine string G has been eliminated; there will also be fewer turbines sited along this string.
H	The northern portion of turbine string H has been eliminated.
I	The northern portion of turbine string I has been extended.
J	Turbine string J is in the same location; there will be fewer turbines sited along this string.

Source: Sagebrush Power Partners LLC 2005.

1 There were later minor modifications to this layout during the County hearing process as  
2 a result of the reduction of turbine numbers to a maximum of 65 at the request of County  
3 staff and the Applicant's offer to the County to increase the setback from existing  
4 residences from 1,000 feet to 1,320 feet. The site layout resulting from these  
5 commitments is attached to this testimony as Attachment 2 and incorporated by reference  
6 herein.

7  
8 The location of construction and permanent road access to turbine string "G" on the east  
9 side of US 97 was also changed. We had agreed to relocate this access to address  
10 concerns raised by the Washington State Department of Transportation  
11

12 The permanent project footprint (for the life of the project) would occupy between 93 and  
13 118 acres for wind turbines, access roads, substations, and other facilities. Between  
14 approximately 231 and 371 acres would be temporarily occupied during construction by  
15 facilities such as staging areas and equipment laydown areas. The only features that  
16 would vary in size between the project scenarios would be the temporary laydown areas  
17 at each wind turbine during construction and the permanent roadway and turbine and  
18 transformer pad footprints; under the lower end scenario, roads would be wider to  
19 accommodate larger construction cranes. The amount of land disturbance required for the  
20 operations and maintenance facility, substation(s), and meteorological towers would not  
21 change under the three scenarios.

22  
23 Up to 65 turbines would be arranged in numerous "strings" shown in Attachment 2  
24 labeled A through J throughout the project site, for a maximum of 23 total miles of

1 turbine strings (Addendum Figure 2-1). The length of the 9 turbine strings would remain  
2 constant under the three project scenarios; only the density of turbines sited within each  
3 string would change. The height of the turbines (referred to as the “tip height”) would  
4 range from about 260 feet to 410 feet from the ground to the blade tip in its highest  
5 position, depending on the turbine size selected (see Addendum Figure 2-2). In any  
6 scenario chosen by the Applicant only a single size of turbines would be used; different  
7 sizes of turbines would not be mixed.

8  
9 Up to 7 miles of existing private roads would be improved, and up to 19 miles of new  
10 access roads would be constructed to access and service the wind turbines and other  
11 facilities at the site. With the project layout revisions, the miles of new road would be  
12 reduced to approximately 13. One O&M facility, approximately 5,000 square feet on a 2-  
13 acre site, also would be constructed. Electrical lines would be installed to connect the  
14 turbines and strings (see Addendum Figure 2-1). Lines connecting individual turbines in  
15 each string would be located underground, and lines connecting the strings primarily  
16 would be underground with some limited overhead lines.

17  
18 Under the Lower End Scenario, wind turbines would be installed along roadways as  
19 shown in Attachment 1. The layout design is based on wind turbines with a rotor  
20 diameter of approximately 295 feet. Because of possible variances that may be  
21 discovered during the final site survey, some flexibility in determining the exact facility  
22 locations is required. Generally, it will not be necessary to relocate roads significantly  
23 from their proposed locations; however, the exact location of the turbines along the  
24

1 planned roadways may need to be altered from the plan shown in Attachment 1 because  
2 of a number of factors including:

- 3
- 4 • The results of geotechnical investigations to be conducted at each surveyed turbine  
5 location may reveal underground voids or fractures. In this case, the turbine location  
6 may need to be altered or eliminated.
  - 7 • The final onsite field survey with the meteorologists may dictate that turbines be  
8 spaced slightly closer together in some areas and farther apart in other areas.
  - 9 • Turbine spacing may be adjusted based on the final rotor diameter selected to  
10 maximize wind energy production.

11  
12 The final field measurement test surveys of microwave communication paths may require  
13 that some turbine locations be adjusted slightly to avoid line-of-sight interference.

14  
15 The minimum setbacks incorporated into the proposed project layout are based on several  
16 factors, including safety and avoidance of nuisance concerns, industry standards, and on  
17 the Applicant's experience in operating wind power projects. The proposed setbacks for  
18 the project's proposed turbine towers are as follows:

- 19 • Setback from residences of neighboring landowners (i.e., those without signed  
20 agreements with the Applicant) has been increased to 1,320 feet.
- 21 • Setback from property lines of neighboring landowners has been increased to 541 feet  
22 beyond the tip of the blade at its closest point to the property line.
- 23 • Setback from residences with signed agreements with the Applicant: At least blade tip  
24 height. However, it may be greater based on the property owner's approval. Some  
25 landowners may want to have turbines closer than 1,000 feet to their residence in  
exchange for more turbines on their land and the revenue generated by them.
- Setback from property lines of landowners with signed agreements with the Applicant:  
None. All property owners with signed agreements with the Applicant have agreed to a  
zero setback from property lines, as this allows the most efficient and lowest impact of  
wind turbines on various landowners' property.
- Setback from Bonneville/PSE transmission lines: Blade tip height.
- Distance from county/state roads: Turbine tip height.

1 Minor adjustments would be made to the proposed project layout such as moving the  
2 turbine tower foundations to maintain the setbacks described above. The proposed  
3 setback for the meteorological towers from public roads and residences is tip height.  
4 There are no designated setbacks for the other project components such as the O&M  
5 facility, substations, and gravel access roads.  
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